

REMARKS

Claims 7-18 are presently in the application. Claims 1-6 have been canceled.

Claims 14-18 have been added. Claims 14-17 include the language "the sealing face of the valve member is embodied as at least approximately in the form of a portion of a sphere," which language has been canceled in claims 10-13.

New independent claim 18 is directed to a high-pressure pump for a fuel injection system of an internal combustion engine, the high-pressure pump having a multi-part pump housing 10 comprising:

a basic body portion 14 adapted to rotatably support a drive shaft 12 and a cylinder head 22 connected to the basic body portion,

a cylinder bore 28 formed in the cylinder head 22,

a pump piston 20 guided displaceably in the cylinder bore 28, one end of the pump piston 20 defining a pump work chamber 30 in the cylinder bore 28, into which fuel is aspirated via an inlet valve 34 upon an intake stroke of the pump piston and from which fuel is positively displaced upon a pumping stroke of the pump piston,

the inlet valve having a pistonlike valve member 56 with a head 58 having a sealing face 60 which cooperates with a valve seat 52 for controlling the communication of the pump work chamber 30 with a fuel inlet 32, the valve member 56 being urged in a closing direction by a closing spring 64 and by pressure prevailing in the pump work chamber and in an opening direction by pressure prevailing in the fuel inlet,

the head 58 of the valve member being disposed in the pump work chamber 30 and protruding from the pump work chamber 30 with a shaft 62 adjoining the head, the closing spring being disposed outside the pump work chamber and engaging the shaft 62,

the valve seat 52 being formed on the cylinder head 22 at a transition from the cylinder bore 28 to an adjoining, smaller-diameter bore 50 formed in the cylinder head; wherein the valve member 56, with its shaft 62, protrudes through the smaller-diameter bore 50 into a further bore 54 in the cylinder head 22 remote from the pump work chamber 30; and

wherein the closing spring 64 is disposed in this further bore 54 in the cylinder head 22.

Claims 6-13 have been rejected under 35 U.S.C. 103(a) as unpatentable over Ruthardt et al (US 6,406,272) in view of Crowley et al (US 5,133,645).

The examiner finds all of the elements of canceled claim 6 in Ruthardt, except for a valve seat formed on the "housing part." Instead, the examiner says that the reference shows the valve seat formed on a separate plate member 24.

The examiner cites Crowley et al for a teaching of a valve seat formed on a housing part, as opposed to a separate plate as taught by Ruthardt.

New independent claim 18 requires a multi-part pump housing 10 including a basic body part 14 mounting a drive shaft and a cylinder head 22 connected to the part 14. The cylinder bore 28, the small-diameter bore 50, further bore 54 and valve seat 52 are formed in the cylinder head. This is clearly not shown in either Ruthardt or Crowley et al.

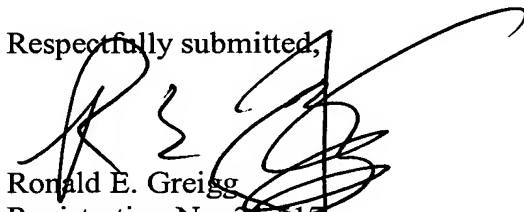
Appl. No. 10/593,326
Amdt. dated December 11, 2007
Reply to Office action of Sept. 11, 2007

To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974).

Neither reference teaches a multi-part pump housing including a basic body part mounting a drive shaft and a cylinder head connected to the basic part, wherein the cylinder bore, small-diameter bore, further bore and valve seat are formed in the cylinder head as required by new claim 18. Accordingly, claim 18 and claims 7-17, dependent on claim 18, are not rendered obvious by the combined teachings of Ruthardt and Crowley et al.

Entry of the amendment and allowance of the claims are respectfully solicited.

Respectfully submitted,



Ronald E. Greigg
Registration No. 34,519
Attorney of Record
CUSTOMER NO. 02119

GREIGG & GREIGG P.L.L.C.
1423 Powhatan Street, Suite One
Alexandria, VA 22314
Telephone: (703) 838-5500
Facsimile: (703) 838-5554

REG/JFG/hhl

J:\Bosch\R307679\Reply to 9-11-07 OA.wpd